Waterway Suitability and Operations

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DOE LNG Forum

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Waterway Suitability & Operations

- ✓ Background Info
- ✓ Waterway Suitability Assessment process
- ✓ Waterway Operations
- ✓ Application Status
- ✓ What's Next?

Background Info
(shore-side LNG terminals)

Applies to "shore-side" LNG Terminals:

- Waterfront LNG terminals
- LNG terminals in state waters
- Does not apply to LNG Deepwater Ports

Background Info
(shore-side LNG terminals)

Suez-Distrigas; Everett, MA

Cove Point LNG; Cove Point, MD

Southern LNG; Elba Island, GA

CMS Trunkline; Lake Charles, LA

Background Info
(shore-side LNG terminals)

1970s: 4 LNG terminals built.

1980: 2 LNG terminals deactivated.

2000: 2 LNG terminals reactivated, many new ones proposed.

2001: Terrorist attacks raise major security concerns, questions arise about LNG safety & security.

2004: Interagency Agreement signed by CG/FERC/DOT (FERC is “lead federal agency”).

2004: Sandia Labs Report was published.

2005: NVIC 05-05 “*Guidance on Assessing the Suitability of a Waterway for LNG Marine Traffic*” was published.

Background Info
(shore-side LNG terminals)

33 CFR Part 127: "Waterfront Facilities Handling LNG & Liquefied Hazardous Gas"

- Facility Standards: Design, construction, equipment, operations, safety, training, firefighting, etc.
- Requires CG COTP to issue Letter of Recommendation (LOR) as to suitability of waterway for LNG marine traffic.
- LOR currently based on navigational safety considerations; does not include maritime security issues.
- NVIC 05-05 developed with goal to include maritime security considerations.

NVIC 05-05: Guidance on Assessing the Suitability of a Waterway for LNG Marine Traffic

Waterway Suitability Assessment (WSA):

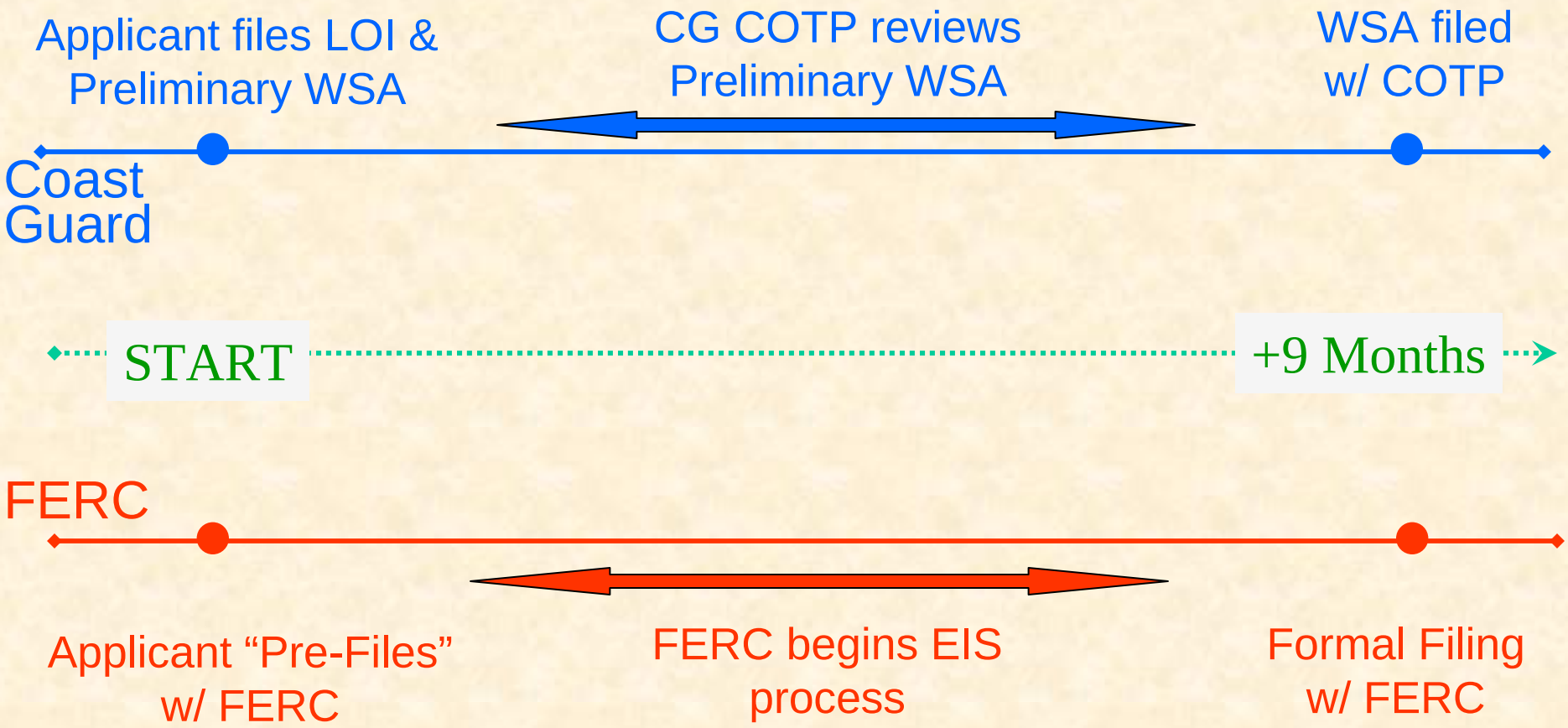
- WSA is developed/reviewed/validated in conjunction with key stakeholders at the port
- Key elements of WSA:
  - ✓ Port characterization
  - ✓ Characterization of LNG facility & tanker route
  - ✓ Risk Assessment for LNG tanker ops (address navigational safety and port security risks)
  - ✓ Risk Management Strategies
  - ✓ Resources needed

NVIC 05-05: Guidance on Assessing the Suitability of a Waterway for LNG Marine Traffic

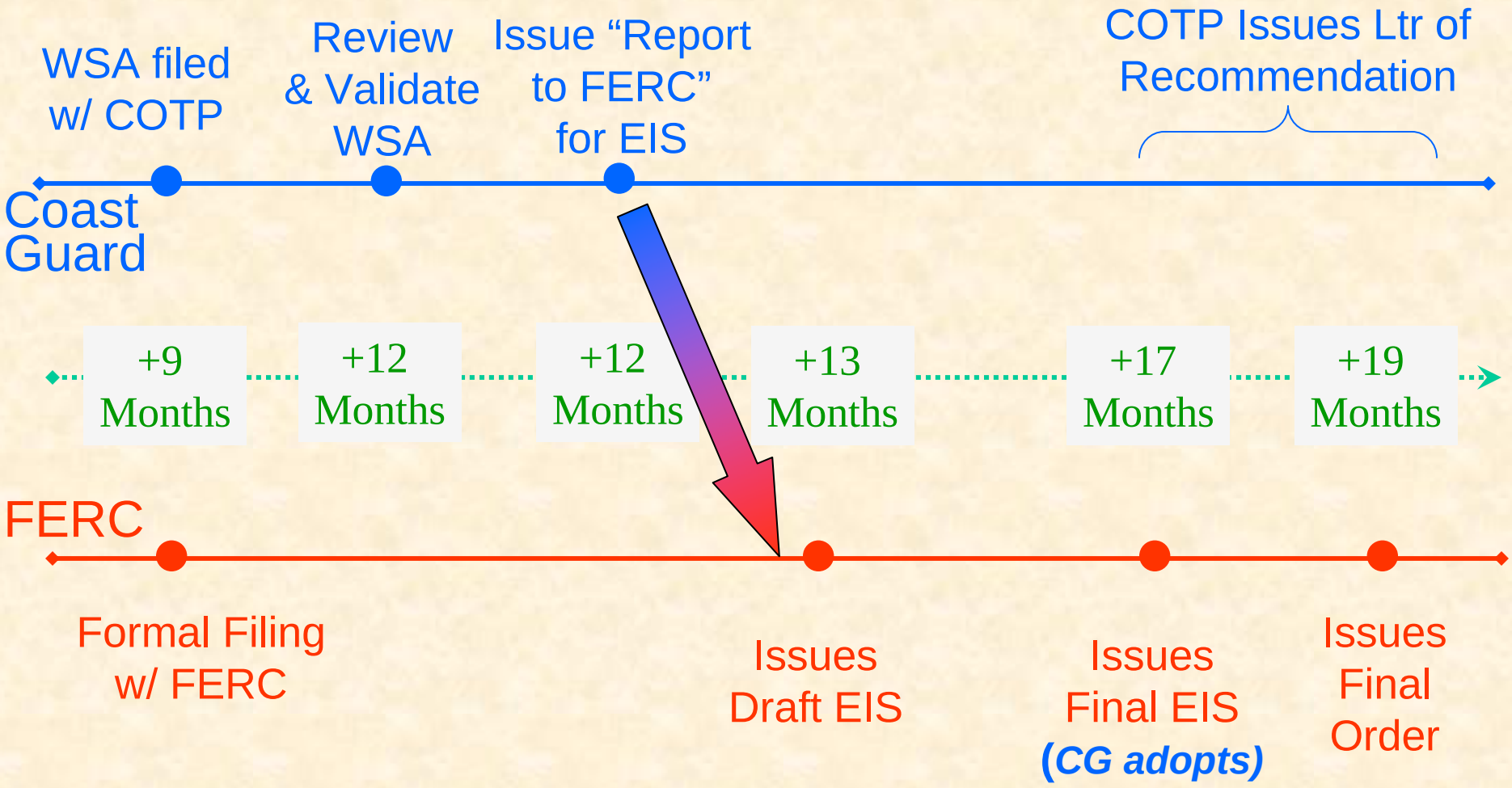
WSA process:

- WSA process accounts for navigational safety plus port security risk factors
- Applicant prepares WSA (w/help from stakeholders)
- COTP reviews/validates WSA (w/help from stakeholders)
- COTP provides "Waterway Suitability Report" to FERC, for inclusion in EIS
- FERC issues EIS & Final Order
- COTP issues Letter of Recommendation (LOR)

CG and FERC Timelines



CG and FERC Timelines



NVIC 05-05: Guidance on Assessing the Suitability of a Waterway for LNG Marine Traffic

Enclosures:

(1) Timeline for Process
(2) Guidance on Conducting WSA
(3) Risk Assessment Quick-Reference Tool
(4) Checklist for Reviewing WSA
(5) Example Press Release
(6) Example Federal Register Notice
(7) Example LOR
(8) Example Record of Decision (ROD)
(9) Example Waterway Suitability Report to FERC
(10) Example Report to FERC, Supplementary Record
(11) Summary of "Zones of Concern"

Guidance on WSA process

NVIC 05-05: Guidance on Assessing the Suitability of a Waterway for LNG Marine Traffic

Encl (3): "Risk Assessment Quick-Reference Tool"

- Available only on "need to know" basis
- Matrix correlates "Risk Factors" with "Risk Management Strategies"
- "Risk Factors" along LNG tanker route are based on proximity to:
  - Highly populated areas
  - Critical Infrastructure & Key Assets
  - Areas of Heavy Marine Traffic
- Matrix also lists "Attack Vectors & Accident Types," and correlates these with "Risk Management Strategies"

NVIC 05-05: Guidance on Assessing the Suitability of a Waterway for LNG Marine Traffic

Implementation (starting 6/14/05):

- ***New Facilities*** – Apply NVIC & complete WSA.
- ***Proposed Facilities already under review or approved*** – Apply NVIC & complete WSA on case-by-case basis.
- ***Existing Facilities*** – Assume existing safety/security measures are O.K., unless COTP has reason to question them (esp. if facility is expanded/modified) and then apply NVIC & complete WSA on case-by-case basis.

Waterway Operations
(shore-side LNG terminals)

Coast Guard plays important safety/security role

Waterway Operations
(shore-side LNG terminals)

Vessel Transit Plan:

- After completing WSA/LOR process, next step is to develop a detailed safety & security plan.
- Plan provides detailed info about:
  - Involved agency responsibilities
  - How agencies interact & communicate
  - Required safety & security measures
- Examples of safety & security measures:
  - Crew screening
  - At-sea safety and/or security boardings
  - Positive Control Measures
  - Surveillance along waterway (air, water, shore)
  - Safety/Security Zone enforcement & armed escorts
  - Boat barriers around moored LNG ships

Application Status
(shore-side LNG terminals)

Approved

• Operating:	**6**
• Approved/Not yet operating:	**7**
	13

Under Review

• New Projects:	**12**
• Expansion Projects:	**6**
	18

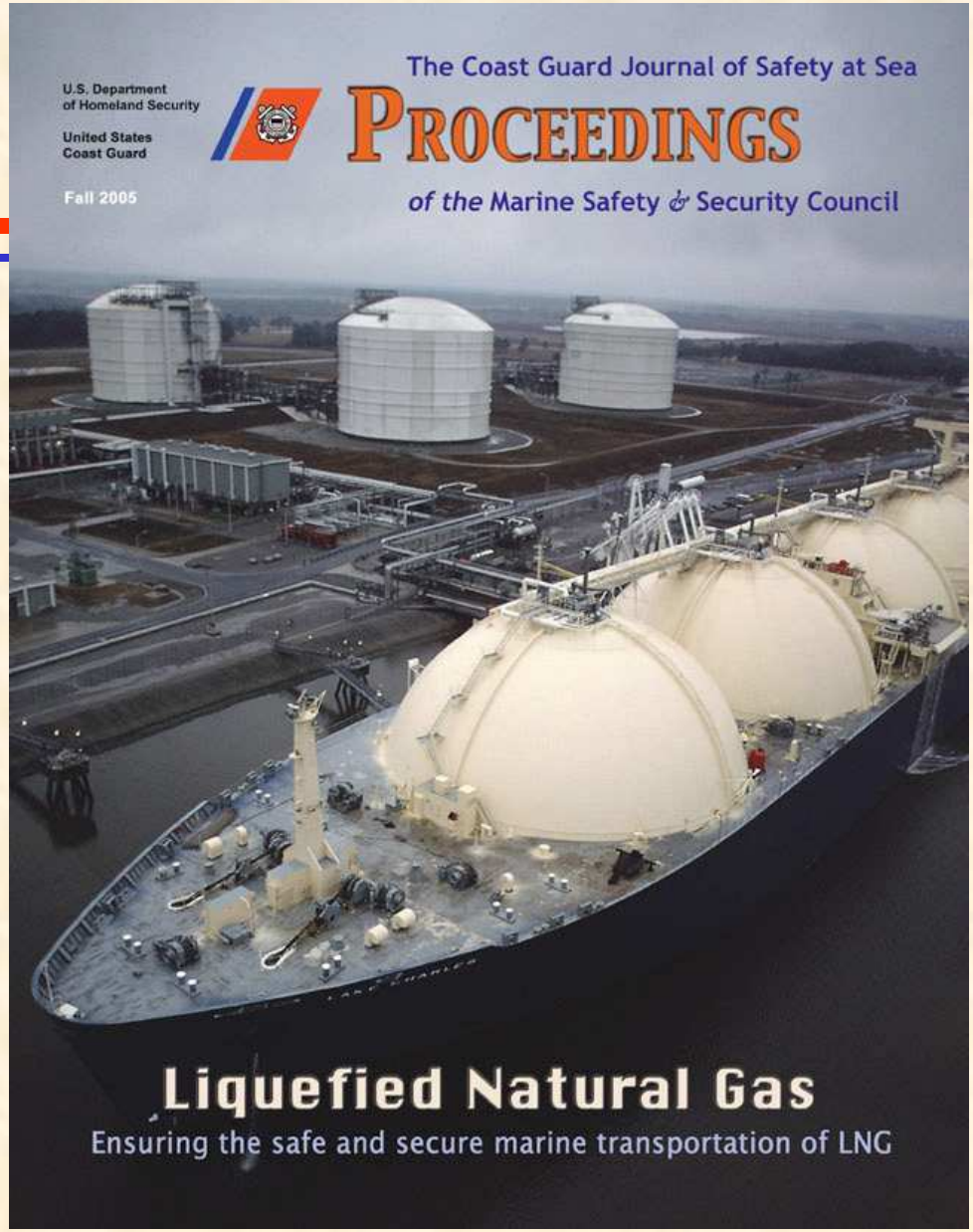
Approval Denied **1**

What's Next?
(shore-side LNG terminals)

- Continued evaluation & refinement of safety/security risk management measures
- Studies of larger-sized LNG carriers
- CG security & safety resource initiatives
- Funding sources for federal safety/security resources; cost-sharing?

Fall 2005 issue of *Proceedings* is dedicated to the marine transportation of LNG

www.uscg.mil/proceedings



Questions?

Operating & Environmental Standards (G-PSO)

- G-PSO-1 Maritime Personnel
- G-PSO-2 Vessel & Facility Operating Stds
- G-PSO-3 Hazardous Materials
- G-PSO-4 Environmental Stds
- G-PSO-5 Deepwater Port Stds

Shore-side LNG Terminals

LNG Vessels

LNG Deepwater Ports (DWPs)

Questions?

Shore-side LNG terminals:

- CDR John Cushing (G-PSO-2) …**202-372-1410**

LNG Vessels:

- CDR Bob Hennessy (G-PSO-3)… **202-372-1420**

LNG Deepwater Ports:

- Mr. Mark Prescott (G-PSO-5) … **202-372-1440**